

Remarks/Arguments

Reconsideration of the above-identified application in view of the present amendment is respectfully requested. Claims 1-4, 8-11, and 18-29 are pending in the present application. Claims 1, 18, 20-25, 27, and 28 have been amended.

Claim Rejection Under 35 U.S.C. § 112

Claims 20, 21, and 23-28 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claims 20, 21, and 23-28 were rejected for failing to provide sufficient antecedent basis. Claims 20, 21, 23-25, 27 and 28 have been amended to overcome this rejection. Allowance of these claims is thus respectfully requested.

It is respectfully submitted that claim 26 is definite and that it particularly points out and distinctly claims the subject matter which applicant regards as the invention. However, if the Examiner maintains that it is appropriate to reject claim 26 under 35 U.S.C. § 112, it is respectfully requested that the Examiner identify how claim 26 is deficient.

Claim Rejection Under 35 U.S.C. § 103

Claims 1-3, 8-10, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,788,976 to Dee in view of U.S. Patent No. 6,309,403 to Minor.

As amended, claim 1 recites an apparatus for cutting bone. The apparatus comprises an elongate member having a central axis that has a tubular portion that extends between a proximal end portion and a distal end portion. The distal end

portion includes an articulatable head section that has at least one planar stop surface, and a cutting edge that projects from, and is integrally formed with, the at least one planar stop surface. The planar stop surface limits axial movement of the cutting edge. The head section is articulatable about a pivot axis that extends transverse to the central axis. The apparatus further comprises means for articulating the head section relative to the tubular portion.

It is respectfully submitted that amended claim 1 is patentable over Dee in view of Minor because the combination of these references do not teach an apparatus having a cutting edge projecting from, and integrally formed with, a planar stop surface that limits axial movement of a cutting edge.

Dee discloses a single scalpel having a universally adjustable blade mounted to the scalpel handle for selected positioning of the blade through an arc shaped range of motion. The Office Action asserts that the scalpel possesses a cutting edge and a planar stop surface which a cutting edge projects from and is integrally formed with. The alleged planar stop surface of Dee, however, is not a stop surface that limits axial movement of a cutting edge. Rather, the alleged planar stop surface is the lateral surface of the scalpel blade. Under no circumstances can the lateral surface of the blade limit axial movement of the cutting edge. As the cutting edge of the blade is advanced, the alleged stop surface simply glides past the tissue that has been cut. Therefore, the alleged stop surface cannot limit axial movement of the blade. In view of the foregoing, it is respectfully submitted that Dee does not teach an apparatus having a cutting edge projecting from, and integrally formed with a planar stop surface that limits axial movement of a cutting edge.

Minor discloses a surgical instrument that includes an actuator, a tool, and a positioning apparatus. Minor does not cure the deficiencies of Dee. The rejection of claim 1 did not rely on Minor to teach a cutting edge projecting from a planar stop surface. Furthermore, Minor does not disclose or suggest any type of cutting edge that projects from, and is integrally formed with a planar stop surface.

Since neither Dee nor Minor disclose an apparatus having a cutting edge projecting from, and integrally formed with a planar stop surface that limits axial movement of a cutting edge, it is respectfully submitted that amended claim 1 is patentable over the combination of these references. Accordingly, it is respectfully submitted that amended claim 1 is allowable.

Claims 2 and 3 depend from claim 1 and are allowable for at least the reasons claim 1 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully requested that claims 2 and 3 be allowed.

Claim 8 recites an apparatus for cutting through cortical bone in a vertebral body. The apparatus has an articulatable head section having a cutting edge for cutting cortical bone and at least one planar stop surface integrally formed with the cutting edge for engaging the cortical bone after the cortical bone is cut by the cutting edge to stop further movement of the head section and prevent the cutting edge from undesirably engaging other tissue or bone.

The above arguments traversing the rejection of claim 1 as being unpatentable over Dee in view of Minor are applied in the exact same manner to respectfully traverse the rejection of claim 8. Thus, in the interest of brevity, replication of these arguments has been omitted. Furthermore, the cutting edge of

claim 8 is stopped from further movement through engagement of the planar stop surface with the inner surface of the cortical bone, thus preventing undesirable cutting of tissues other than bone. Unlike the apparatus of claim 8, undesirable cutting of tissue in Dee is accomplished solely through the skill and precision of the person manipulating the apparatus, and is in no way dependant on the alleged stop surface.

In view of the foregoing, it is respectfully submitted that the references of record do not teach the apparatus described in claim 8 as amended. Accordingly, it is respectfully submitted that claim 8 is allowable.

Claims 9 and 10 depend from claim 8 and are allowable for at least the reasons claim 8 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully requested that claims 9 and 10 be allowed.

As amended, claim 22 recites an apparatus for cutting bone. The apparatus has an articulatable head section having at least one planar stop surface and a cutting edge projecting from, and integrally formed with, the at least one planar stop surface. The cutting edge projects at a right angle from the at least one planar stop surface, which is adapted to engage the bone after the bone is cut by the cutting edge to stop further movement of the head section and prevent the cutting edge from undesirably engaging other tissue or bone.

All the above arguments traversing the rejection of claim 8 as being unpatentable over Dee in view of Minor are applied in the exact same manner to respectfully traverse the rejection of claim 22. Thus, in the interest of brevity, replication of these arguments has been omitted.

In view of the foregoing, it is respectfully submitted that the references of record do not teach the apparatus described in claim 22 as amended. Accordingly, it is respectfully requested that claim 22 be allowed.

Claims 20 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dee in view of Minor further in view of U.S. Patent No. 5,871,204 to Spirer.

As amended, claim 20 recites an apparatus for cutting bone. The apparatus has an articulatable head section having at least one planar stop surface and a cutting edge projecting from, and integrally formed with, the at least one stop surface. The planar stop surface limits axial movement of the cutting edge.

Because Dee remains the foundation of the rejection of claim 20, the above arguments traversing the rejection of claim 1 as being unpatentable over Dee in view of Minor are applied in the exact same manner to respectfully traverse the rejection of claim 20. Thus, in the interest of brevity, replication of these arguments has been omitted.

In view of the foregoing, it is respectfully submitted that the references of record do not teach the apparatus described in claim 20 as amended. Accordingly, it is respectfully requested that claim 20 be allowed.

Claim 23 recites an apparatus for cutting through cortical bone in a vertebral body. The apparatus has an articulatable head section having a cutting edge for cutting cortical bone and at least one planar stop surface for engaging the cortical bone after the cortical bone is cut by the cutting edge to stop further movement of the head section and prevent the cutting edge from undesirably engaging other tissue or bone. The cutting edge projects from, and is integrally formed with, the at least one planar stop surface.

Because Dee remains the foundation of the rejection of claim 23, all the above arguments traversing the rejection of claim 8 as being unpatentable over Dee in view of Minor are applied in the exact same manner to respectfully traverse the rejection of claim 23. Thus, in the interest of brevity, replication of these arguments has been omitted.

In view of the foregoing, it is respectfully submitted that the references of record do not teach the apparatus described in claim 23. Accordingly, it is respectfully requested that claim 23 be allowed.

Claims 21, 24, and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Dee in view of Minor further in view of Spierer further in view of U.S. Patent No. 5,372,587 to Hammerslag.

Claim 21 depends from claim 20, discussed above, and is allowable for at least the reasons claim 20 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully submitted that claim 21 is allowable.

Claims 24 and 25 depend from claim 23, discussed above, and are allowable for at least the reasons claim 23 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully submitted that claims 24 and 24 are allowable.

Claims 4, 11, and 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dee in view of Minor further in view of Spierer further in view of Hammerslag further in view of U.S. Patent No. 6,830,574 to Heckeles.

Claim 4 depends from claim 1, discussed above, and is allowable for at least the reasons claim 1 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully submitted that claim 4 is allowable.

Claim 11 depends from claim 8, discussed above, and is allowable for at least the reasons claim 8 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully submitted that claim 11 is allowable.

Claims 26-28 depend from claim 23, discussed above, and are allowable for at least the reasons claim 23 is allowable, and for the specific limitations recited therein. Accordingly, it is respectfully submitted that claims 26-28 are allowable.

It is respectfully requested that the amendments of claims 1, 18, 20-25, 27, and 28, in conjunction with the above discussion of the references cited by the Office Action, traverses the rejections, thus placing all pending claims in condition for allowance. Therefore, allowance of application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

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